AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A target object inspection system comprising:

a first detector for detecting radiation from a radiation source;

a second detector for detecting radiation from the target object;

a mobile platform including the first detector, the second detector and the radiation source; and

a boom connected to the radiation source and the mobile platform, wherein the boom is deployed so as to effect passage of the target object between the radiation source and the first and second detectors, and further wherein the mobile platform and the target object pass alongside one another during inspection.

2. (Original) The system according to claim 1, wherein the first detector is a photon detector.

3. (Original) The system according to claim 1, wherein the second detector is a neutron detector.

4. (Original) The system according to claim 1, wherein the first detector detects radiation from the radiation source after the radiation passes through the target object.

5. (Original) The system according to claim 1, wherein the radiation source is a gamma radiation source.

6. (Original) The system according to claim 3, wherein the neutron detector comprises at least one helium detector.

7. (Original) The system according to claim 2, further comprising:

a counter for discretely counting photons received by the first detector; and

a display responsive to the counter for generating a display of the target object in response to the counter.

8. (Original) The system according to claim 3, further comprising an indicator for indication the presence of neutrons.

9-39. (Cancelled).

40. (New) The system according to claim 1, wherein the mobile platform is a truck which includes a truck bed.

41. (New) The system according to claim 40, wherein the first detector and the second detector are located on the truck bed.

42. (New) The system according to claim 41, wherein the second detector is a neutron detector capable of operating in at least one of two modes:

integral mode, wherein the neutron detector is turned ON and OFF by an operator and detects neutrons only while ON; and

differential mode, wherein the neutron detector is always ON and is set to detect neutrons above a pre-set threshold level.

43. (New) The system according to claim 1, further comprising, a velocity measuring device capable of measuring the velocity of the target during inspection.

44. (New) The system according to claim 43, wherein the velocity measuring device is a Doppler radar system.

45. (New) The system according to claim 43, wherein the velocity measuring device is a radar range finder.

46. (New) The system according to claim 43, wherein the velocity measuring device comprises at least two pressure pads spaced a known distance apart.

47. (New) The system according to claim 1, wherein the mobile platform is capable of inspecting a target either when the mobile platform is stationary or when the mobile platform is moving.